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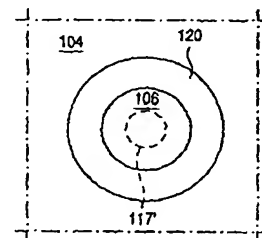
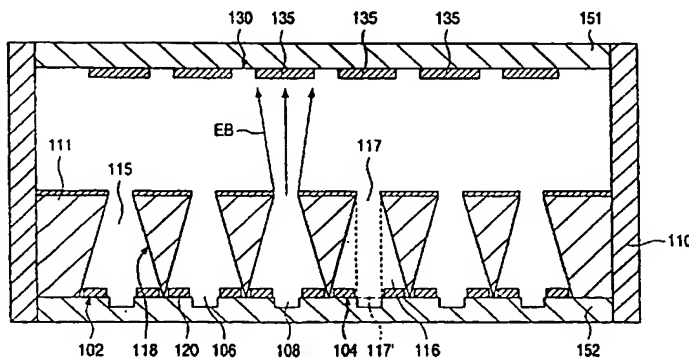
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[Continued on next page]

(54) Title: **VACUUM DISPLAY DEVICE WITH REDUCED ION DAMAGE**



**B**

**A**

(57) **Abstract:** A display device has a display screen for displaying image information, and cathode means comprising an emitter material for emitting electrons. The emitted electrons are collected by an electron concentrator which redistributes the electrons in a homogenous electron beam (EB). The emitter material is arranged on a first surface excluding a first impact area on which positive ions land that pass through the electron concentrator. Therefore, substantially no emitter material is provided at the first impact area, so that damage inflicted on the cathode means by the positive ions is reduced. Preferably, the display device has a pumping chamber between the cathode means and a back plate, for removing residual gases from the display device.

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